

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

VIACOM INTERNATIONAL, INC., COMEDY)
PARTNERS, COUNTRY MUSIC.)
TELEVISION, INC., PARAMOUNT)
PICTURES CORPORATION, and BLACK)
ENTERTAINMENT TELEVISION, LLC,)
)
Plaintiffs,)
)
vs.) NO. 07-CV-2203
)
YOUTUBE, INC., YOUTUBE, LLC,)
and GOOGLE, INC.,)
)
Defendants.)
)
_____)
)
THE FOOTBALL ASSOCIATION PREMIER)
LEAGUE LIMITED, BOURNE CO., et al.,)
on behalf of themselves and all)
others similarly situated,)
)
Plaintiffs,)
vs.) NO. 07-CV-3582
)
YOUTUBE, INC., YOUTUBE, LLC, and)
GOOGLE, INC.,)
)
Defendants.)
_____)
)

VIDEOTAPED DEPOSITION OF MICHAEL SOLOMON
PALO ALTO, CALIFORNIA
TUESDAY, SEPTEMBER 1, 2009

JOB NO. 17576

1 SEPTEMBER 1, 2009

2 9:05 a.m.

3

4 VIDEOTAPED DEPOSITION OF MICHAEL SOLOMON,

5 WILSON SONSINI GOODRICH & ROSATI,

6 650 Page Mill Road, Palo Alto, California,

7 pursuant to notice, and before me, ANDREA M.

8 IGNACIO HOWARD, CLR, RPR, CRR, CSR License

9 No. 9830.

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A P P E A R A N C E S:

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A P P E A R A N C E S (Continued.)

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1 SOLOMON, M.

2 09:13:21 start working on it or when did it become a company

3 09:13:25 and when did I start getting paid?

4 09:13:26 Q Let's take it step by step.

5 09:13:28 When did you first start working at YouTube,

6 09:13:30 whether paid or unpaid and whether or not it was a

7 09:13:33 company?

8 09:13:34 A Maybe May of 2005.

9 09:13:39 Q Okay. And was -- were you being paid in May

10 09:13:46 of 2005?

11 09:13:48 A No.

12 09:13:48 Q Okay. So in what capacity were you

13 09:13:51 affiliated with YouTube in May of 2005?

14 09:14:02 A Steve would ask me how to solve problems. I

15 09:14:06 would give him the answers.

16 09:14:07 Q What's Steve's last name?

17 09:14:09 A Chen.

18 09:14:10 Q Okay. And he is one of the original founders

19 09:14:15 of YouTube; is that correct?

20 09:14:16 A Yes.

21 09:14:16 Q And there were two others; is that correct?

22 09:14:20 A Yes.

23 09:14:21 Q They were?

24 09:14:25 A Jawed Karim and Chad Hurley.

25 09:14:30 Q Okay. So at that time, in May of 2005, when

1 SOLOMON, M.

2 09:14:33 you started working with YouTube in a non- -- in an

3 09:14:40 unpaid capacity, were there any other individuals

4 09:14:44 either employed at YouTube or working in the same kind

5 09:14:46 of unpaid capacity other than you and the three

6 09:14:50 founders?

7 09:15:00 A Maybe Yu Pan.

8 09:15:04 Q Okay. Anybody else that you recall?

9 09:15:13 A Maybe Christina Brodbeck.

10 09:15:23 Q Was Cuong Do, D-O, affiliated with YouTube at

11 09:15:41 that time?

12 09:15:41 A No, I don't think so.

13 09:15:51 Q Okay. So at that time when it was the three

14 09:15:59 founders, you, maybe Yu Pan, and maybe Christina

15 09:16:06 Broadbeck, were you the principal software engineer at

16 09:16:11 that time?

17 09:16:13 A You could say that.

18 09:16:19 Q Okay. So you started in May of 2005 in an

19 09:16:28 unpaid capacity. Did that capacity ever change as

20 09:16:31 time went on?

21 09:16:34 A Yes.

22 09:16:34 Q When was that?

23 09:16:40 A I think October of that year.

24 09:16:43 Q And how did it change in October of 2005?

25 09:16:50 A The company was, you know, formally

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SOLOMON, M.

09:16:52 incorporated and we started getting paid.

09:16:57 Q Okay. In October of 2005, were there
09:17:10 additional employees at YouTube other than you, the
09:17:12 three fan -- founders, maybe Yu Pan, and maybe
09:17:18 Christina Broadbeck?

09:17:26 A I think so.

09:17:29 Q Do you recall their names?

09:17:36 A I think Chad -- Chad's brother Brent, had
09:17:41 probably started working there by then, if -- very
09:17:46 soon after if not.

09:17:49 Q Anybody else?

09:17:50 A Right around the time that we incorporated, I
09:17:53 don't really recall.

09:17:55 Q Okay. Is Brent a software engineer?

09:17:58 A No, he is not.

09:17:59 Q Okay. So when was the -- actually, let me
09:18:06 strike that and back up.

09:18:07 Did there ever come a time when YouTube hired
09:18:10 another software engineer other than you?

09:18:13 A Yes.

09:18:13 Q Who was the first software engineer other
09:18:17 than you to be hired by YouTube?

09:18:32 A Either Yu Pan or Cuong.

09:18:37 Q I'm sorry. What was the second name after Yu

SOLOMON, M.

09:18:40 Pan?

09:18:44 A Cuong.

09:18:45 Q Is that Mr. Do?

09:18:47 A I'm sorry. Yes.

09:18:56 Q What were your responsibilities in that

09:18:58 October 2005 time frame?

09:19:05 A Mostly just software development, general

09:19:08 operations work.

09:19:11 Q And when you say "software development" and

09:19:15 "operations work," was that all development and work

09:19:18 on developing the YouTube.com website?

09:19:23 A Yes, in the systems, you know, behind the

09:19:26 scenes that supported them.

09:19:27 Q Okay. Would you include what are known as

09:19:55 the "admin websites" as part of the behind-the-scene

09:19:58 systems?

09:20:01 MR. WILLEN: Objection to the form; assumes

09:20:03 facts.

09:20:05 MR. DESANCTIS: Q. Are you familiar with

09:20:06 the -- with the admin websites that are part of the

09:20:09 YouTube system?

09:20:11 A I'm familiar with one website, yes.

09:20:14 Q Okay. Well, what is that website? What --

09:20:17 A That is the admin website.

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SOLOMON, M.

09:20:20 Q Do you know the URL for that?

09:20:23 A Yes.

09:20:23 Q What is that?

09:20:24 A Admin.YouTube.com.

09:20:34 Q Is that accessible by the public?

09:20:37 MR. WILLEN: Objection to the form; vague.

09:20:39 THE WITNESS: You'll have to be more specific

09:20:44 about what you mean by "public."

09:20:45 MR. DESANCTIS: Q. To -- is it available --

09:20:47 is it accessible by non-YouTube or non-Google

09:20:51 employees?

09:20:56 A No.

09:20:57 Q Okay. Can you tell me generally, not all the

09:21:01 specifics, but generally what the Admin.Youtube.com

09:21:05 website is?

09:21:06 A Generally, it's admin tools for the YouTube

09:21:09 website.

09:21:10 Q Okay. And is it right that those admin tools

09:21:25 are available only to YouTube and Google employees?

09:21:35 A I don't know the policies that are associated

09:21:37 with admin these days.

09:21:39 Q Okay. And were you involved in developing

09:21:46 the admin.YouTube.com site?

09:21:50 MR. WILLEN: Objection to the form; vague.

SOLOMON, M.

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2 09:23:02 A Almost all projects, regardless of who the
3 09:23:05 primary author, would normally have a discussion with
4 09:23:09 me.

5 09:23:14 Q I'm sorry. Your answer was, "Almost all
6 09:23:24 projects, regardless of who the primary author, would
7 09:23:26 normally have a discussion with me."

8 09:23:30 They would normally have discussions with you
9 09:23:33 about anything, about what?

10 09:23:35 A Technical direction, implementation details.

11 09:23:37 Q Okay. For all projects at YouTube?

12 09:23:40 A Not for all, but for the majority.

13 09:23:45 Q Okay. So if not you, was there a different
14 09:24:00 software engineer who was primarily responsible for
15 09:24:03 developing the admin.YouTube.com website?

16 09:24:06 A Yes.

17 09:24:07 Q Who was that?

18 09:24:15 A Probably Erik Klein.

19 09:24:28 Q Do you recall when Erik Klein first began
20 09:24:31 working at YouTube, approximately?

21 09:24:34 A 2006.

22 09:24:34 Q Early? Middle? Late?

23 09:24:40 A Early.

24 09:24:40 Q Before early 2006, was there an
25 09:24:55 admin.YouTube.com website?

1 SOLOMON, M.

2 10:33:20 What is being sent over these arrows from the

3 10:33:23 end user to these three various destinations?

4 10:33:27 MR. WILLEN: Objection to the form.

5 10:33:34 THE WITNESS: This is just a conceptual

6 10:33:36 document. It doesn't really reflect reality.

7 10:33:40 MR. DESANCTIS: Q. Well, because it -- is it

8 10:33:49 a -- because it's a summary? I mean, it obviously

9 10:33:52 doesn't have all of the detail in the YouTube

10 10:33:54 network --

11 10:33:55 A Uh-huh.

12 10:33:55 Q -- but if we -- is it -- do you understand

13 10:34:00 what the document is portraying?

14 10:34:09 A Only using my internal knowledge of the

15 10:34:11 system.

16 10:34:12 Q Okay. Well, that's -- that's good.

17 10:34:16 Using your internal knowledge of the system,

18 10:34:22 what is it that's being sent -- do you know what's

19 10:34:25 being sent over these arrows --

20 10:34:29 MR. WILLEN: Object.

21 10:34:29 MR. DESANCTIS: Q. -- over the three arrows

22 10:34:31 running from the end user icon to the three

23 10:34:34 destinations, net scaler, video servers, and CDN?

24 10:34:38 MR. WILLEN: Objection to the form.

25 10:34:40 THE WITNESS: My understanding is not that --

1 SOLOMON, M.

2 10:34:46 is that this is just showing at a high level where

3 10:34:52 data comes from.

4 10:34:53 MR. DESANCTIS: Okay.

5 10:34:54 Q Where data comes from from -- for what

6 10:34:57 purpose?

7 10:34:58 MR. WILLEN: Objection to the form.

8 10:35:07 MR. DESANCTIS: Let me suggest.

9 10:35:08 Q Is it when an end user requests a Watch Page?

10 10:35:11 A It doesn't seem to indicate that. It --

11 10:35:17 yeah.

12 10:35:17 Q So you don't know if it's --

13 10:35:19 A I don't know what it's referring to. It's

14 10:35:20 very generic.

15 10:35:23 Q Okay. Okay. I'm sorry to do this to you,

16 10:35:33 but I just need to consult with my team for a minute,

17 10:35:36 so can we have another three-minute break and --

18 10:35:38 MR. WILLEN: Sure. No problem.

19 10:35:40 THE VIDEOGRAPHER: The time is 10:35.

20 10:35:42 Off the record.

21 10:35:43 (Recess taken.)

22 10:41:46 THE VIDEOGRAPHER: The time is 10:42.

23 10:41:48 On the record.

24 10:41:49 MR. DESANCTIS: Okay.

25 10:41:52 Q Mr. Solomon, when a -- when a user uploads a

1 SOLOMON, M.

2 10:41:57 video, YouTube stores that video; correct?

3 10:42:02 MR. WILLEN: Objection to the form.

4 10:42:04 THE WITNESS: Yes, video is stored when you

5 10:42:14 upload it.

6 10:42:15 MR. DESANCTIS: Okay.

7 10:42:23 Q But it's not necessarily stored in the format

8 10:42:26 that the user uploaded it in; correct?

9 10:42:33 A Yes, it is always stored in the format it's

10 10:42:36 uploaded in.

11 10:42:37 Q Okay. Is it also -- is a video uploaded by a

12 10:42:43 user also transcoded into a format other than what the

13 10:42:48 user uploaded it in?

14 10:42:51 A Yes, a transcode is always attempted.

15 10:42:54 Q Okay. So there is the original copy uploaded

16 10:43:01 by the user in the format uploaded by the user, and

17 10:43:04 then, if I understand correctly, YouTube transcodes

18 10:43:09 that or attempts to transcode that and, if successful,

19 10:43:14 makes a second copy in a new transcoded format?

20 10:43:18 MR. WILLEN: Objection to the testimony.

21 10:43:21 THE WITNESS: When -- during the upload

22 10:43:23 process, the file that the user uploads is stored.

23 10:43:26 The transcoder process attempts to convert that

24 10:43:32 original uploaded file into a file playable by the

25 10:43:36 website.

1 SOLOMON, M.

2 10:43:36 MR. DESANCTIS: Okay.

3 10:43:44 Q And if successful -- if the attempt to

4 10:43:47 convert the original file is successful, does YouTube

5 10:43:54 make additional copies?

6 10:43:57 MR. WILLEN: Objection to the form.

7 10:44:00 THE WITNESS: Yeah, I don't understand

8 10:44:01 "additional copies."

9 10:44:02 MR. DESANCTIS: Okay.

10 10:44:03 Q Well, there's the original copy uploaded by

11 10:44:06 the user in the format uploaded by the user.

12 10:44:09 A (Witness nods head.)

13 10:44:10 Q Then YouTube attempts to transcode that file.

14 10:44:13 A Uh-huh.

15 10:44:14 Q If successful, we then have two -- YouTube

16 10:44:18 then has two copies, the original and the transcoded

17 10:44:20 copy; correct?

18 10:44:23 A They are different, completely different

19 10:44:26 files. They have no -- like -- they are usually

20 10:44:30 completely unrelated to the -- to each other.

21 10:44:32 Q Okay. Does YouTube make any copies of the

22 10:44:39 transcoded file?

23 10:44:42 MR. WILLEN: Are you done with the question?

24 10:44:44 Objection to the form of the question.

25 10:44:50 THE WITNESS: The process of transcoding

1 SOLOMON, M.

2 10:44:55 creates a new file.

3 10:44:56 MR. DESANCTIS: Right. The process of

4 10:44:58 transcoding creates one new file. That's good.

5 10:45:03 Q Does YouTube then create additional copies of

6 10:45:05 that one file, or does YouTube maintain only one copy

7 10:45:11 of the transcoded file?

8 10:45:15 MR. WILLEN: Objection to the form; objection

9 10:45:18 to what's meant by "YouTube."

10 10:45:22 THE WITNESS: Also, I'm not exactly sure what

11 10:45:24 you mean by "copy."

12 10:45:27 MR. DESANCTIS: What's confusing about the --

13 10:45:33 when I say the copy of a -- of a -- I'm sorry. Let me

14 10:45:35 back up.

15 10:45:48 Q I had said the process of transcoding creates

16 10:45:54 one new file, and I then asked, does YouTube then

17 10:45:58 create additional copies of that one file, or does

18 10:46:01 YouTube maintain only one copy of the transcoded file?

19 10:46:05 So when I -- you asked me -- what is it about

20 10:46:07 copy that you don't understand?

21 10:46:10 A You mean -- well, copying mean -- meaning an

22 10:46:15 exact identical copy of the -- of the file.

23 10:46:19 Q Yeah, I mean a duplicate file copy of the

24 10:46:22 same data.

25 10:46:24 A Yes, there's -- there's a copy of the file.

1 SOLOMON, M.

2 10:46:30 Q Okay. So -- so the -- that I'm clear,

3 10:46:35 there's the original uploaded by the user.

4 10:46:37 A Uh-huh.

5 10:46:38 Q There is the -- let's call it the initial

6 10:46:41 transcoded file.

7 10:46:42 A Uh-huh.

8 10:46:42 Q And YouTube then makes an additional copy of

9 10:46:46 the transcoded file, so there are in -- in total

10 10:46:50 three --

11 10:46:51 MR. WILLEN: Objection to the --

12 10:46:53 MR. DESANCTIS: Q. -- versions of -- well --

13 10:47:00 MR. WILLEN: So objection --

14 10:47:00 MR. DESANCTIS: Q. -- there are --

15 10:47:00 MR. WILLEN: Sorry, finish your question.

16 10:47:02 MR. DESANCTIS: Q. So there would be a total

17 10:47:03 of three files representing the video up -- uploaded

18 10:47:06 by the user?

19 10:47:07 MR. WILLEN: So just let me object.

20 10:47:11 THE WITNESS: Okay.

21 10:47:11 MR. WILLEN: So objection to the form of all

22 10:47:13 of that. Particularly, to the recharacterization of

23 10:47:18 Mr. Solomon's testimony that was embedded into the

24 10:47:21 question.

25 10:47:24 THE WITNESS: So I think to answer precisely,

1 SOLOMON, M.

2 10:47:27 I need to know what time frame we're talking about

3 10:47:30 and -- yeah.

4 10:47:35 MR. DESANCTIS: Okay.

5 10:47:35 Q Let's talk about the middle of 2006.

6 10:47:44 A So in the middle of 2006, there would be the

7 10:47:55 original file, the transcoded video, and either one or

8 10:48:07 two backup copies, depending on which type of hardware

9 10:48:12 they're running on.

10 10:48:13 Q Okay. So let's focus for now on the

11 10:49:05 transcoded copy and the one or two backups.

12 10:49:12 In the mid-2006 time frame, where were those

13 10:49:16 files stored by YouTube?

14 10:49:29 A Are you asking the -- the physical location?

15 10:49:33 Q I'm -- let's -- let's -- I will, but let's

16 10:49:37 take a step back.

17 10:49:38 Were -- were the trans- -- in the mid-2006

18 10:49:42 time frame, were the transcoded copy and the one or

19 10:49:45 two backups of uploaded videos stored on servers owned

20 10:49:50 and operated by YouTube?

21 10:49:55 A I think the answer is maybe.

22 10:49:58 Q Why maybe?

23 10:49:59 A Because I don't recall when our first data

24 10:50:05 centers came online.

25 10:50:10 Q Okay. When you say the data server -- "data

1 SOLOMON, M.

2 14:02:38 the right -- he may have had the right to do that at

3 14:02:41 the time this e-mail was written, but a user would not

4 14:02:43 have had the right to do that after you had the filter

5 14:02:46 in place; correct?

6 14:02:48 MR. WILLEN: Objection to the form.

7 14:02:51 THE WITNESS: Can you specify? I mean, it's

8 14:02:53 unclear of what the meaning of the word "right" is

9 14:02:58 here in this particular context.

10 14:02:59 MR. DESANCTIS: Sure. That's fair, and I

11 14:03:04 suppose we can't divine what a particular user meant

12 14:03:09 by a particular word.

13 14:03:13 Q Let me ask it this way: Do you recall the

14 14:03:20 blocking tool or filter, as you called it, ever having

15 14:03:22 been put in place?

16 14:03:24 A Yes.

17 14:03:24 Q Okay. Do you recall approximately when it

18 14:03:27 was put in place?

19 14:03:30 A I do not. No, not from memory.

20 14:03:34 Q And how did that filter work?

21 14:03:40 A The filter computes a hash of the uploaded

22 14:03:45 file and compares it against the hash values of other

23 14:03:50 files that the user has uploaded.

24 14:03:53 Q Okay. And if it matches other files, what

25 14:03:59 happens? First of all, if the hashes -- if the hash

1 SOLOMON, M.

2 14:04:03 of one file matches the hash of another file, what
3 14:04:07 does that indicate about the two files?

4 14:04:10 A It means that there's a reasonable chance
5 14:04:13 that they're the same, but it's not 100 percent.
6 14:04:15 There could be collisions.

7 14:04:19 Q Okay. So what happened -- how does your
8 14:04:24 filter respond if there are two files with the same
9 14:04:31 hash uploaded by the same user?

10 14:04:36 A It's been a while, so I can say generally,
11 14:04:38 but some of the specific actions, you know, I may not
12 14:04:41 recall.

13 14:04:44 Q That's fine.

14 14:04:45 A But the general -- the general idea is to
15 14:04:47 mark subsequent files as -- as a duplicate rejection.

16 14:04:53 Q Okay. And are subsequent files marked as a
17 14:05:05 duplicate rejection before they are sort of publicly
18 14:05:11 viewable on the website?

19 14:05:14 A Yes. It goes directly from the uploaded
20 14:05:17 state to the rejected state.

21 14:05:19 Q Okay. And the reason it's rejected, when
22 14:05:24 this filter is being used, is not because it was
23 14:05:31 previously rejected or previously deleted or anything
24 14:05:35 like that, it's simply because there are -- the same
25 14:05:39 user has already uploaded the identical video?

1 SOLOMON, M.

2 14:05:43 MR. WILLEN: Objection to form.

3 14:05:45 MR. DESANCTIS: I'm just trying to

4 14:05:47 understand.

5 14:05:47 THE WITNESS: The filter -- the purpose of

6 14:05:49 the filter is to prevent the same user from uploading

7 14:05:53 the identical video again.

8 14:05:55 MR. DESANCTIS: Okay.

9 14:05:55 THE WITNESS: And so once he's uploaded it, a

10 14:05:59 hash is computed, and then a subsequent file can be

11 14:06:02 uploaded. If the -- if the hash matches, then that

12 14:06:06 subsequent file and any subsequent file from that --

13 14:06:09 that matches the hash within that user, it's marked as

14 14:06:12 a -- as a reject, yeah.

15 14:06:16 MR. DESANCTIS: Okay.

16 14:06:20 Q Is that still in place today, that filter?

17 14:06:23 A I do not know.

18 14:06:24 Q Okay. When the filter was in place -- well,

19 14:06:27 was it in place ever?

20 14:06:29 A Yes.

21 14:06:29 Q Okay. When it was in place, if a user wanted

22 14:06:34 to upload multiple copies of the same file, could they

23 14:06:41 have?

24 14:06:45 A It's vague as your -- I mean, in terms of

25 14:06:47 what do you mean by "user"?